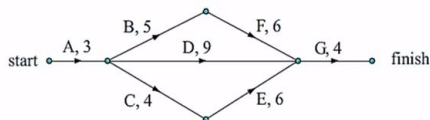


Goals

This week:

- use forward and backward scanning to determine the earliest starting time (EST) and latest starting times (LST) for each activity in the project
- use ESTs and LSTs to locate the critical path(s) for the project
- use the critical path to determine the minimum time for a project to be completed
- calculate float times for non-critical activities
- solve small-scale network flow problems including the use of the 'maximum-flow minimum-cut' theorem; for example, determining the maximum volume of oil that can flow through a network of pipes from an oil storage tank (the source) to a terminal (the sink)



Activity Table

Activity	Duration	Predecessors	Earliest Start Time EST	Latest Start Time LST	Slack Time
A					
B					
C					
D					
E					
F					
G					

Theoretical Components

Resources:

For this week the theory work is in the *PDF file*:
Week 11/12 Notes & Exercises

Forward and backward scanning:

<https://www.youtube.com/watch?reload=9&v=QYGRDsiV9aI>

Knowledge Checklist

- Backward scanning
- Float time
- Critical path
- EST
- LFT
- Sink
- Flow capacity
- Inflow
- Outflow
- Max flow and min cut

Practical Components

There are questions to be answered in the booklet *Week 11/12 Notes & Exercises*.

Investigation

On HawkerMaths and attached to this week's work